

03/12/01  
U.S. PTO

03-13-01

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Please type a plus sign (+) inside this box ☒ Approved for use through 10/31/2002. OMB 0651-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
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# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. 424P045  
First Inventor Katsuya Sangu  
Title Positioning apparatus used in a process for producing multi-layered printed circuit...  
Express Mail Label No. EI724599923US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 18]  
(preferred arrangement set forth below)
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 6]
5. Oath or Declaration [Total Pages 4]
  - a. ☒ Newly executed (original or copy)  
Copy from a prior application (37 CFR 1.63 (d))  
(for continuation/divisional with Box 17 completed)
  - b. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a. ☐ Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies); or
    - ii. ☐ paper
  - c. ☐ Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Other:

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No. /

Prior application information

Examiner

Group / Art Unit

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 18. CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name Kevin S. Lemack

Nields & Lemack

Address 176 E. Main Street - Suite 8

City Westboro

State MA

Zip Code 01581

Country U.S.A.

Telephone (508) 898-1818

Fax (508) 898-2020

Name (Print/Type) Kevin S. Lemack

Registration No. (Attorney/Agent)

32,579

Signature

Date 3/12/01

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# FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$ 910.00

## Complete if Known

Application Number	Not yet assigned
Filing Date	Herewith By Express Mail
First Named Inventor	Katsuya Sangu
Examiner Name	Not yet assigned
Group Art Unit	Not yet assigned
Attorney Docket No.	424P045

## METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number 14-0930  
Deposit Account Name Nields & Lemack

☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

☐ Applicant claims small entity status See 37 CFR 1.27

2. ☒ Payment Enclosed:

☒ Check ☐ Credit card ☐ Money Order ☐ Other

## FEE CALCULATION

## 1. BASIC FILING FEE

Large Entity Fee Code	Small Entity Fee Code	Fee Description	Fee Paid
101 710	201 355	Utility filing fee	\$710
106 320	206 160	Design filing fee	
107 490	207 245	Plant filing fee	
108 710	208 355	Reissue filing fee	
114 150	214 75	Provisional filing fee	

SUBTOTAL (1) (\$ 710.00

## 2. EXTRA CLAIM FEES

Extra Claims Fee from below Fee Paid

Total Claims 20 -20\*\* = 0 x 18 = 0

Independent Claims 5 -3\*\* = 2 x 80 = 160

Multiple Dependent 270 = 0

Large Entity Fee Code	Small Entity Fee Code	Fee Description
103 18	203 9	Claims in excess of 20
102 80	202 40	Independent claims in excess of 3
104 270	204 135	Multiple dependent claim, if not paid
109 80	209 40	** Reissue independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 160.00

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

Large Entity Fee Code	Small Entity Fee Code	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for ex parte reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 390	216 195	Extension for reply within second month	
117 890	217 445	Extension for reply within third month	
118 1,390	218 695	Extension for reply within fourth month	
128 1,890	228 945	Extension for reply within fifth month	
119 310	219 155	Notice of Appeal	
120 310	220 155	Filing a brief in support of an appeal	
121 270	221 135	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,240	241 620	Petition to revive - unintentional	
142 1,240	242 620	Utility issue fee (or reissue)	
143 440	243 220	Design issue fee	
144 600	244 300	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Processing fee under 37 CFR 1.17(q)	
126 180	126 180	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	\$40
146 710	246 355	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 710	249 355	For each additional invention to be examined (37 CFR § 1.129(b))	
179 710	279 355	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 40.00

## SUBMITTED BY

Name (Print/Type)	Kevin S. Lemack	Registration No. (Attorney/Agent)	32,579	Telephone	(508) 898-1818
Signature		Date	3/12/01		

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Katsuya Sangu, Ryoichi Ida, Katsumi Momose and Michitomo Koda**

For: **POSITIONING APPARATUS USED IN A PROCESS FOR PRODUCING MULTI-LAYERED PRINTED CIRCUIT BOARD AND METHOD OF USING THE SAME**

Assistant Commissioner of Patents and Trademarks  
Washington, D.C. 20231  
Sir:


LETTER

The above-identified applicants enclose for filing a patent application entitled "POSITIONING APPARATUS USED IN A PROCESS FOR PRODUCING MULTI-LAYERED PRINTED CIRCUIT BOARD AND METHOD OF USING THE SAME". Said attached patent application includes (1) Patent Application Transmittal Letter (1-Page); (2) Patent Application: 18-Page Specification (including 6-Pages of Claims (20) and 1-Page Abstract), 6-sheets of A4 size formal drawings and an executed Declaration and Power of Attorney (4-Pages); (3) Fee Transmittal Form (1-Page), together with a check in the amount of \$910.00 in payment of the Filing Fee and Recording Fee; and (4) Recordation Form cover sheet (1-Page); Assignment (1-Page).

All correspondence concerning this application should be mailed to:

**Kevin S. Lemack  
Nields & Lemack  
176 E. Main Street - Suite 8  
Westboro, Massachusetts 01581**

Respectfully submitted,

  
Kevin S. Lemack  
Attorney for Applicant  
Registration No. 32,579

Date: March 12, 2001

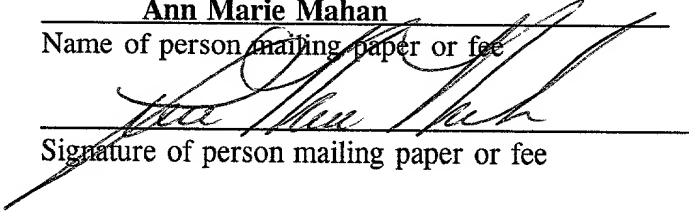
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Katsuya Sangu, et al.  
Serial No. : Not yet assigned  
Filed : Herewith By Express Mail  
For : POSITIONING APPARATUS USED IN A PROCESS FOR  
PRODUCING MULTI-LAYERED PRINTED CIRCUIT BOARD  
AND METHOD OF USING THE SAME  
Examiner : Not yet assigned  
Art Unit : Not yet assigned  
Attorney  
Docket No. : 424P045  
Type of paper : Letter

"EXPRESS MAIL" MAILING LABEL NO. **EI724599923US**  
DATE OF DEPOSIT: March 12, 2001

I hereby certify that this patent application is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to: Assistant Commissioner of Patents and Trademarks, **BOX: PATENT APPLICATION**, Washington, D.C. 20231.

Ann Marie Mahan  
Name of person mailing paper or fee

  
Signature of person mailing paper or fee